$\frac{0590}{1009}$

2

RAW SEQUENCE LISTING   DATE: 11/06/2001
PATENT APPLICATION: US/09/977,053   TIME: 10:50:42

Input Set : A:\LEX-0256-USA seqlist.txt
Output Set: N:\CRF3\11062001\I977053.raw

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 4 <110> APPLICANT: Friddle, Carl Johan
 5        Hilbun, Erin
 6        Walke, D. Wade
 7        Turner, C. Alexander Jr.
 9 <120> TITLE OF INVENTION: Novel Human Membrane Protein and
10        Polynucleotides Encoding the Same
13 <130> FILE REFERENCE: LEX-0256-USA
C--> 15 <140> CURRENT APPLICATION NUMBER: US/09/977,053  OK
C--> 15 <141> CURRENT FILING DATE: 2001-10-12
15 <150> PRIOR APPLICATION NUMBER: US 60/240,466
16 <151> PRIOR FILING DATE: 2000-10-13
18 <160> NUMBER OF SEQ ID NOS: 7
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 3324
24 <212> TYPE: DNA
25 <213> ORGANISM: homo sapiens
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30 ggggcccccg ggagtatccc cgcgccgccc gctcctggcg acgaagcggc ggggagcaga 180
31 gtggagcggc tgggccaggc gttccggcga cgcgtgcggc tgctgcggga gctcagcgag 240
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33 agcgagctca tgttcgtccg caagctgctg tccgacttcc ccgtggtgcc cacggccacg 360
34 cgcgtggcca tcgtgacctt ctcgtccaag aactacgtgg tgccgcgcgt cgattacatc 420
35 tccacccgcc gcgcgcgcca gcacaagtgc gcgctgctcc tccaagagat ccctgccatc 480
36 tcctaccgag gtggcggcac ctacaccaag ggcgccttcc agcaagccgc gcaaattctt 540
37 cttcatgcta gagaaaactc aacaaaagtt gtatttctca tcactgatgg atattccaat 600
38 gggggagacc ctagaccaat tgcagcgtca ctgcgagatt caggagtgga gatcttcact 660
39 tttggcatat ggcaagggaa cattcgagag ctgaatgaca tggcttccac cccaaaggag 720
40 gagcactgtt acctgctaca cagttttgaa gaatttgagg ctttagctcg ccgggcattg 780
41 catgaagatc taccttctgg gagtttttatt caagatgata tggtccactg ctcatatctt 840
42 tgtgatgaag gcaaggactg ctgtgaccga atgggaagct gcaaatgtgg gacacacaca 900
43 ggccattttg agtgcatctg tgaaaagggg tattacggga aggtctgca gtatgaatgc 960
44 acagcttgcc catcggggac atacaaacct gaaggctcac caggaggaat cagcagttgc 1020
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46 gtctgcagag agggatacag ggcatctggc cagacctgtg aacttgtcca ctgccctgcc 1140
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48 gcctgtgggg tccgatgtca ccctggattt gatcttgtgg gaagcagcat catcttatgt 1260
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RAW SEQUENCE LISTING   DATE: 11/06/2001
PATENT APPLICATION: US/09/977,053 TIME: 10:50:42

Input Set : A:\LEX-0256-USA seqlist.txt
Output Set: N:\CRF3\11062001\I977053.raw

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59 gctatcgtat acacggcaac tgacctatcc ggcaaccagg ccagctgcat tttccatatc 1920
60 aaggttattg atgcagaacc acctgtcata gactggtgca gatctccacc tcccgtccag 1980
61 gtctcggaga aggtacatgc cgcaagctgg gatgagcctc agttctcaga caactcaggg 2040
62 gctgaattgg tcattaccag aagtcataca caaggagacc ttttccctca aggggagact 2100
63 atagtacagt atacagccac tgacccctca ggcaataaca ggacatgtga tatccatatt 2160
64 gtcataaaag gttctccctg tgaaattcca ttcacacctg taaatgggga ttttatatgc 2220
65 actccagata atactggagt caactgtaca ttaacttgct tggagggcta tgatttcaca 2280
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68 gagatgttct acaaagcagc tcgttgtgat gacacagatc tgatgaagaa gttttctgaa 2460
69 gcatttgaga cgaccctggg aaaaatggtc ccatcatttt gtagtgatgc agaggacatt 2520
70 gactgcagac tggaggagaa cctgaccaaa aaatattgcc tagaatataa ttatgactat 2580
71 gaaaatggct ttgcaattgg accaggtggc tggggtgcag ctaataggct ggattactct 2640
72 tacgatgact tcctggacac tgtgcaagaa acagccacaa gcatcggcaa tgccaagtcc 2700
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77 acaaaaaagg cttccccctt ctgcagacca ggctcagtgc tgagagggcg tatgtgtgtc 3000
78 aattgccctt tgggaaccta ttataatctg gaacatttca cctgtgaaag ctgccggatc 3060
79 ggatcctatc aagatgaaga agggcaactt gagtgcaagc tttgcccctc tgggatgtac 3120
80 acggaatata tccattcaag aaacatctct gattgtaaag gtagaggctt actggacatt 3180
81 tcaactagaa gcagcccaat ttttgtttcc cttttggggg aaagaaagat ttattttctt 3240
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85 <210> SEQ ID NO: 2
86 <211> LENGTH: 1107
87 <212> TYPE: PRT
88 <213> ORGANISM: homo sapiens
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93 Gly Trp Ala Thr Phe Gln Gln Met Ser Pro Ser Arg Asn Phe Ser Phe
94   20   25   30
95 Arg Leu Phe Pro Glu Thr Ala Pro Gly Ala Pro Gly Ser Ile Pro Ala
96   35   40   45
97 Pro Pro Ala Pro Gly Asp Glu Ala Ala Gly Ser Arg Val Glu Arg Leu
98   50   55   60
99 Gly Gln Ala Phe Arg Arg Arg Val Arg Leu Leu Arg Glu Leu Ser Glu
100 65   70   75   80
101 Arg Leu Glu Leu Val Phe Leu Val Asp Asp Ser Ser Ser Val Gly Glu
102   85   90   95
103 Val Asn Phe Arg Ser Glu Leu Met Phe Val Arg Lys Leu Leu Ser Asp
104   100   105   110
105 Phe Pro Val Val Pro Thr Ala Thr Arg Val Ala Ile Val Thr Phe Ser
106   115   120   125
107 Ser Lys Asn Tyr Val Val Pro Arg Val Asp Tyr Ile Ser Thr Arg Arg

RAW SEQUENCE LISTING   DATE: 11/06/2001
PATENT APPLICATION: **US/09/977,053**   TIME: 10:50:42

Input Set : A:\LEX-0256-USA seqlist.txt
Output Set: N:\CRF3\11062001\I977053.raw

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110 145                 150                 155                 160
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112                 165                 170                 175
113 Ala Gln Ile Leu Leu His Ala Arg Glu Asn Ser Thr Lys Val Val Phe
114                 180                 185                 190
115 Leu Ile Thr Asp Gly Tyr Ser Asn Gly Gly Asp Pro Arg Pro Ile Ala
116             195                 200                 205
117 Ala Ser Leu Arg Asp Ser Gly Val Glu Ile Phe Thr Phe Gly Ile Trp
118     210                 215                 220
119 Gln Gly Asn Ile Arg Glu Leu Asn Asp Met Ala Ser Thr Pro Lys Glu
120 225                 230                 235                 240
121 Glu His Cys Tyr Leu Leu His Ser Phe Glu Glu Phe Glu Ala Leu Ala
122                 245                 250                 255
123 Arg Arg Ala Leu His Glu Asp Leu Pro Ser Gly Ser Phe Ile Gln Asp
124                 260                 265                 270
125 Asp Met Val His Cys Ser Tyr Leu Cys Asp Glu Gly Lys Asp Cys Cys
126             275                 280                 285
127 Asp Arg Met Gly Ser Cys Lys Cys Gly Thr His Thr Gly His Phe Glu
128     290                 295                 300
129 Cys Ile Cys Glu Lys Gly Tyr Tyr Gly Lys Gly Leu Gln Tyr Glu Cys
130 305                 310                 315                 320
131 Thr Ala Cys Pro Ser Gly Thr Tyr Lys Pro Glu Gly Ser Pro Gly Gly
132             325                 330                 335
133 Ile Ser Ser Cys Ile Pro Cys Pro Asp Glu Asn His Thr Ser Pro Pro
134             340                 345                 350
135 Gly Ser Thr Ser Pro Glu Asp Cys Val Cys Arg Glu Gly Tyr Arg Ala
136             355                 360                 365
137 Ser Gly Gln Thr Cys Glu Leu Val His Cys Pro Ala Leu Lys Pro Pro
138     370                 375                 380
139 Glu Asn Gly Tyr Phe Ile Gln Asn Thr Cys Asn Asn His Phe Asn Ala
140 385                 390                 395                 400
141 Ala Cys Gly Val Arg Cys His Pro Gly Phe Asp Leu Val Gly Ser Ser
142             405                 410                 415
143 Ile Ile Leu Cys Leu Pro Asn Gly Leu Trp Ser Gly Ser Glu Ser Tyr
144             420                 425                 430
145 Cys Arg Val Arg Thr Cys Pro His Leu Arg Gln Pro Lys His Gly His
146         435                 440                 445
147 Ile Ser Cys Ser Thr Arg Glu Met Leu Tyr Lys Thr Thr Cys Leu Val
148     450                 455                 460
149 Ala Cys Asp Glu Gly Tyr Arg Leu Glu Gly Ser Asp Lys Leu Thr Cys
150 465                 470                 475                 480
151 Gln Gly Asn Ser Gln Trp Asp Gly Pro Glu Pro Arg Cys Val Glu Arg
152             485                 490                 495
153 His Cys Ser Thr Phe Gln Met Pro Lys Asp Val Ile Ile Ser Pro His
154             500                 505                 510
155 Asn Cys Gly Lys Gln Pro Ala Lys Phe Gly Thr Ile Cys Tyr Val Ser
156             515                 520                 525
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157 Cys Arg Gln Gly Phe Ile Leu Ser Gly Val Lys Glu Met Leu Arg Cys
158     530             535             540
159 Thr Thr Ser Gly Lys Trp Asn Val Gly Val Gln Ala Ala Val Cys Lys
160 545             550             555                     560
161 Asp Val Glu Ala Pro Gln Ile Asn Cys Pro Lys Asp Ile Glu Ala Lys
162                 565             570                     575
163 Thr Leu Glu Gln Gln Asp Ser Ala Asn Val Thr Trp Gln Ile Pro Thr
164             580             585             590
165 Ala Lys Asp Asn Ser Gly Glu Lys Val Ser Val His Val His Pro Ala
166         595             600             605
167 Phe Thr Pro Pro Tyr Leu Phe Pro Ile Gly Asp Val Ala Ile Val Tyr
168     610             615             620
169 Thr Ala Thr Asp Leu Ser Gly Asn Gln Ala Ser Cys Ile Phe His Ile
170 625             630             635                     640
171 Lys Val Ile Asp Ala Glu Pro Pro Val Ile Asp Trp Cys Arg Ser Pro
172             645             650                     655
173 Pro Pro Val Gln Val Ser Glu Lys Val His Ala Ala Ser Trp Asp Glu
174         660             665             670
175 Pro Gln Phe Ser Asp Asn Ser Gly Ala Glu Leu Val Ile Thr Arg Ser
176         675             680             685
177 His Thr Gln Gly Asp Leu Phe Pro Gln Gly Glu Thr Ile Val Gln Tyr
178     690             695             700
179 Thr Ala Thr Asp Pro Ser Gly Asn Asn Arg Thr Cys Asp Ile His Ile
180 705             710             715                     720
181 Val Ile Lys Gly Ser Pro Cys Glu Ile Pro Phe Thr Pro Val Asn Gly
182             725             730                     735
183 Asp Phe Ile Cys Thr Pro Asp Asn Thr Gly Val Asn Cys Thr Leu Thr
184             740             745             750
185 Cys Leu Glu Gly Tyr Asp Phe Thr Glu Gly Ser Thr Asp Lys Tyr Tyr
186     755             760             765
187 Cys Ala Tyr Glu Asp Gly Val Trp Lys Pro Thr Tyr Thr Thr Glu Trp
188     770             775             780
189 Pro Asp Cys Ala Lys Lys Arg Phe Ala Asn His Gly Phe Lys Ser Phe
190 785             790             795                     800
191 Glu Met Phe Tyr Lys Ala Ala Arg Cys Asp Asp Thr Asp Leu Met Lys
192             805             810             815
193 Lys Phe Ser Glu Ala Phe Glu Thr Thr Leu Gly Lys Met Val Pro Ser
194             820             825             830
195 Phe Cys Ser Asp Ala Glu Asp Ile Asp Cys Arg Leu Glu Glu Asn Leu
196     835             840             845
197 Thr Lys Lys Tyr Cys Leu Glu Tyr Asn Tyr Asp Tyr Glu Asn Gly Phe
198     850             855             860
199 Ala Ile Gly Pro Gly Gly Trp Gly Ala Ala Asn Arg Leu Asp Tyr Ser
200 865             870             875                     880
201 Tyr Asp Asp Phe Leu Asp Thr Val Gln Glu Thr Ala Thr Ser Ile Gly
202             885             890                     895
203 Asn Ala Lys Ser Ser Arg Ile Lys Arg Ser Ala Pro Leu Ser Asp Tyr
204         900             905             910
205 Lys Ile Lys Leu Ile Phe Asn Ile Thr Ala Ser Val Pro Leu Pro Asp
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206         915              920              925
207 Glu Arg Asn Asp Thr Leu Glu Trp Glu Asn Gln Gln Arg Leu Leu Gln
208     930              935              940
209 Thr Leu Glu Thr Ile Thr Asn Lys Leu Lys Arg Thr Leu Asn Lys Asp
210 945              950              955              960
211 Pro Met Tyr Ser Phe Gln Leu Ala Ser Glu Ile Leu Ile Ala Asp Ser
212              965              970              975
213 Asn Ser Leu Glu Thr Lys Lys Ala Ser Pro Phe Cys Arg Pro Gly Ser
214         980              985              990
215 Val Leu Arg Gly Arg Met Cys Val Asn Cys Pro Leu Gly Thr Tyr Tyr
216     995              1000              1005
217 Asn Leu Glu His Phe Thr Cys Glu Ser Cys Arg Ile Gly Ser Tyr Gln
218     1010              1015              1020
219 Asp Glu Glu Gly Gln Leu Glu Cys Lys Leu Cys Pro Ser Gly Met Tyr
220 1025              1030              1035              1040
221 Thr Glu Tyr Ile His Ser Arg Asn Ile Ser Asp Cys Lys Gly Arg Gly
222              1045              1050              1055
223 Leu Leu Asp Ile Ser Thr Arg Ser Ser Pro Ile Phe Val Ser Leu Leu
224         1060              1065              1070
225 Gly Glu Arg Lys Ile Tyr Phe Leu His Pro Thr Leu Gly Ser Cys Leu
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229 Tyr Ser Ile
230 1105
233 <210> SEQ ID NO: 3
234 <211> LENGTH: 10716
235 <212> TYPE: DNA
236 <213> ORGANISM: homo sapiens
238 <400> SEQUENCE: 3
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241 ggggcccccg ggagtatccc cgcgccgccc gctcctggcg acgaagcggc ggggagcaga 180
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244 agcgagctca tgttcgtccg caagctgctg tccgacttcc ccgtggtgcc cacggccacg 360
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256 attccatgtc ctgatgaaaa tcacacctct ccacctggaa gcacatcccc tgaagactgt 1080
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VERIFICATION SUMMARY   DATE: 11/06/2001
PATENT APPLICATION: US/09/977,053   TIME: 10:50:44

Input Set : **A:\LEX-0256-USA seqlist.txt**
Output Set: **N:\CRF3\11062001\I977053.raw**

L:15 M:270 C: Current Application Number differs, Replaced Current Application No
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date